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MAY 1 1991 - MONTANA WATER SUPPLY OUTLOOK REPORT

April mountain precipitation was near to a little above average west of the Divide while much above average precipitation fell east of the Divide. Significant improvements in snowpacks were reported in southwest, central and south-central Montana. The snowpack conditions are now near to above average except in southwest Montana where below to slightly below average snowpacks remain. Streamflows for the remaining spring and summer months are expected to be below to well below average in southwest Montana, above to well above average in the northwestern and north-central areas of the state and near to a little above average elsewhere. Surface Water Supply Indexes (SWSI) range from -2.3 on the Beaverhead River Drainage to +3.4 on the Marias River Drainage.

SNOWPACK

Montana's mountain snowpack conditions continued to show good improvement over much of the state during April. The southwestern, central and south-central areas of the state showed the greatest improvement. Snowpack conditions are now near to above average except in southwest Montana, where below to slightly below average snowpacks remain. West of the Divide, snowpacks are generally above to well above average on the Kootenai and Flathead River Basins, near average on the Blackfoot, Lower Clark Fork and Upper Clark Fork River Basins and slightly below average on the Bitterroot River Basin. One exception in the Upper Clark Fork Basin is noted in the Flint Creek Mountain Range near Anaconda where below average snowpacks persist. East of the Divide, snowpacks improved significantly and only the headwater areas of the Jefferson River Drainage in extreme southwest Montana report below average snowpack. Snowpack conditions on the Madison, Gallatin, Smith, Judith, Musselshell and Upper Yellowstone River Basins are near to above average. Above average snowpacks are also reported in the Big Horn Mountains of northern Wyoming which feed the Lower Yellowstone tributaries. Well above average snowpacks remain in the headwater areas of the Sun, Teton, Marias, Milk and St. Mary River Basins in north-central Montana.

PRECIPITATION

MOUNTAIN AREAS - Mountain precipitation during April ranged from near average in northwestern and western Montana to well above average in the southwest, central and south-central parts of the state. West of the Divide, basin precipitation totals ranged from 90 to 110 percent of average except in the Bitterroot River Basin which reported 125 percent of average. East of the Divide, mountain precipitation totals ranged from 150 percent of average on the Jefferson, Madison, Gallatin and Missouri Mainstem River Basins to 240 percent of average on the Smith, Judith and Musselshell River Basins. The Upper and Lower Yellowstone River Basins reported 180 percent of average mountain precipitation while the Sun, Teton and Marias River Basins received 160 percent of average amounts. Since October 1, cumulative mountain precipitation remains well above average in the northwest and north-central areas of the state, slightly below average in southwest Montana and near to above average elsewhere.

VALLEY AREAS - West of the Divide, April valley precipitation totals were below average while east of Divide totals were above to much above average. During the month, the heaviest amounts fell across portions of central, south-central and southeast Montana in the Judith, Musselshell, Yellowstone and Little Missouri River Basins. Monthly precipitation totals in these drainages ranged from 200 to 250 percent of average. Many stations reported over 4 inches of moisture. Another band of fairly heavy precipitation fell along the front range of the Rocky Mountains in the headwaters of the Sun, Teton, Marias and St. Mary Rivers. Monthly totals in this area ranged from 2 to 4 inches which is 130 to 150 percent of average. Except for a small area bounded by Helena, Butte and Three Forks that reported below average precipitation, all reporting stations east of the Divide reported above average moisture.

RESERVOIRS

Reservoir storage levels remain varied across the state. West of the Divide, storage levels are generally near to above average. Exceptions are Hungry Horse, Lake Koocanusa and the combined storages of the four Camas Reservoirs and the eight Mission Valley reservoirs which report below to well below average levels. East of the Divide, Lima, Clark Canyon, Bair, Pishkun and Swift Reservoirs report well below average levels. Below average levels are reported in Fort Peck, Martinsdale, Deadman's Basin, Four Horns, Lake Sherburne, Fresno and Nelson Reservoirs. Most other reservoirs report near to above average storage levels.

STREAMFLOW

Water supply forecasts for the remaining spring and summer months have improved over southwest, central and south-central Montana as a result of well above average precipitation and snow accumulation during April. Forecasts, however, remain below to well below average in southwest and west-central Montana. West of the Divide, streamflow projections range from above to well above average on the Kootenai and Flathead River Basins to well below average on the Upper Clark Fork River and its tributaries. Below average flows are also expected on the Bitterroot River and the Clark Fork River between Missoula and St. Regis. The Blackfoot River and Lower Clark Fork River below St. Regis are expected to have near average flows. East of the Divide, streamflow forecasts remain below to well below average on the Jefferson, Madison and Missouri Mainstem above Ft. Benton. Near to a little above average flows are now forecast on the Missouri below Ft. Benton, Smith, Judith, Musselshell, Gallatin and Upper Yellowstone River Basins. Well above average spring and summer streamflows are forecast for the Sun, Teton, and Marias River Basins while the Milk, St. Mary and Lower Yellowstone tributaries are expected to have near to above average flows.

SOIL MOISTURE

Mountain soil moisture conditions have improved as a result of spring precipitation and melting snow. Soils in the northwest and north-central mountainous areas of the state are mostly saturated. Elsewhere, the mid and low elevation zones have near normal moisture conditions in the top soil profiles while the subsoil profiles remain drier than normal. High elevation soils are beginning to be recharged with the beginning of snowmelt. Snowmelt runoff will be delayed until the drier soils become recharged.

SURFACE WATER SUPPLY INDEX

The Surface Water Supply Index (SWSI) is a measure of available surface water supplies during the spring and summer months. The index ranges from -4.0 to +4.0. A SWSI of -4.0 represents an extremely dry situation, 0 is near a normal situation and +4.0 represents an extremely wet situation. The SWSI provides a scale to evaluate various levels of wetness or dryness and water supply conditions across the state. The SWSI takes into account snowpack, mountain precipitation, soil moisture and available reservoir storage.

SWSI Scale

SWSI	DESIGNATION
+3.0 to +4.0	Extremely wet
+2.0 to +3.0	Moderately wet
+1.0 to +2.0	Slightly wet
-1.0 to +1.0	Near average
-1.0 to -2.0	Slightly dry
-2.0 to -3.0	Moderately dry
-3.0 to -4.0	Extremely dry

SWSI's are currently available on the following basins. This list will be expanded as SWSI's for other basins are developed

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SWSI as of May 1, 1991 for the remainder of the 1991 irrigation season.

SWSI	BASIN
+3.3	Tobacco River
-1.2	Clark Fork above Blackfoot River
+0.7	Blackfoot River
-0.1	Clark Fork River at Missoula
-1.1	Bitterroot River
-0.4	Clark Fork River below Bitterroot River
-2.3	Beaverhead River
-1.8	Ruby River
-1.3	Big Hole River
-0.8	Boulder River (Jefferson)
-1.5	Jefferson River
-1.0	Madison River
+0.6	Gallatin River
-0.8	Missouri River above Canyon Ferry
+1.5	Smith River
+3.3	Sun River
+3.4	Marias River
+0.5	Musselshell River
+1.8	Milk River
-0.4	Yellowstone River above Livingston
+1.0	Shields River
+0.8	Boulder River (Yellowstone)
+1.1	Stillwater River (Yellowstone)
-0.5	Clarks Fork River
+0.8	Rock-Red Lodge Creek
0.0	Yellowstone River above Bighorn River
+1.2	Little Bighorn River
+2.1	Tongue River

PEAK FLOWS

Estimates of peak snowmelt flow ranges for unregulated streams are as follows:

May 1, 1991
ESTIMATE OF PEAK SNOWMELT RUNOFF

	Peak Day Range in CFS	1961-85 AVG CFS
COLUMBIA RIVER DRAINAGE		
Blackfoot R nr Bonner	6,500-10,000	9,588
Clark Fk R ab Missoula	10,000-16,000	16,738
Bitterroot R nr Darby	4,300-6,500	6,229
Clark Fk R bl Missoula	21,000-32,000	31,992
Clark Fk R at St. Regis	28,000-40,000	39,984
N Fk Flathead R nr Columbia Falls	23,000-29,000	21,189
M Fk Flathead R nr West Glacier	22,000-29,000	22,463
MISSOURI RIVER DRAINAGE		
Big Hole R nr Melrose	5,000-7,500	8,015
Ruby R ab Reservoir	700-1,100	1,037
Gallatin R nr Gateway	5,000-6,200	5,389
Gallatin R nr Logan	5,200-7,000	5,581
Missouri R at Toston	15,000-21,000	19,042
Marias R nr Shelby	8,000-12,000	11,516
S Fk Musselshell R ab Martinsdale	700-1,100	1,229
YELLOWSTONE RIVER DRAINAGE		
Yellowstone R at Corwin Springs	14,000-19,000	17,532
Yellowstone R at Livingston	15,000-21,000	20,732
Boulder R nr Big Timber	4,400-6,000	5,226
Stillwater R nr Absarokee	5,000-7,500	6,601
Clarks Fk nr Belfry	6,000-8,500	7,706
Yellowstone R at Billings	33,000-46,000	42,716

The lower range represents the maximum daily flow that would be expected to occur with little rainfall during the peak snowmelt period. The higher range could be expected with moderate amounts of rain about the same time as maximum snowmelt runoff is occurring.

Assuming near normal spring temperatures and precipitation, this year's projections are for above average snowmelt peak for northwest and north-central Montana streams, near average for central and south-central area streams and below average for streams in the west and southwest part of the state.

Based on current snowpack levels, tributaries to the Kootenai should reach peak snowmelt runoff in late May. Snowmelt peaks for streams in the Flathead Drainage should occur in early June. Streams in the Upper Clark Fork, Bitterroot and Lower Clark Fork River Basins should reach peak snowmelt runoff in late May or early June.

East of the Divide, The Beaverhead, Ruby and Madison Rivers should peak in late May. The Big Hole, Gallatin, Missouri, north-central and central Montana streams should reach peak snowmelt runoff in early to mid-June. The Yellowstone River and its tributaries should reach peak snowmelt runoff in mid to late June.

KOOTENAI RIVER BASIN in Montana

April mountain precipitation was 115 percent of average. The cumulative total since October 1 is 148 percent of average. Mountain snowpacks range from near average on the Fisher River Basin to about 140 percent of average on the East Kootenay River in British Columbia. Forecasts for the spring and summer streamflows are expected to be above to well above average. The tributary streams in Montana should reach peak snowmelt runoff in mid to late May at above average levels. The Surface Water Supply Index (SWSI) for the Tobacco River is +3.3.

STREAMFLOW FORECASTS

FORECAST POINT	FCST PERIOD	<---DRIER--- FUTURE --WETTER---> CHANCE OF EXCEEDING * 90% (KAF)	70% (KAF)	50% (KAF)	50% %AVG	30% (KAF)	10% (KAF)	25YR (KAF)
TOBACCO nr Eureka	MAY-JUL	141	151	157	138	163	173	114
	MAY-SEP	158	169	177	138	185	196	128
KOOTENAI bl Libby Dam (1,2)	MAY-JUL	6040	6690	6990	129	7290	7940	5438
	MAY-SEP	7210	7980	8330	129	8680	9450	6456
FISHER nr Libby	MAY-JUL	181	195	205	121	215	230	170
	MAY-SEP	200	215	225	120	235	250	187
YAAK nr Troy	MAY-JUL	405	445	470	120	495	535	392
	MAY-SEP	435	475	500	120	525	565	415
KOOTENAI at Leonia (1,2)	MAY-JUL	7220	8010	8370	127	8730	9520	6585
	MAY-SEP	8410	9340	9760	127	10200	11100	7685

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1985 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
LAKE KOOCANUSA	5748.0	1225.0	1912.0	1932.0

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
EAST KOOTENAI in B.C.	27	153	141
KOOTENAI MAINTSTEM in MT	29	152	119
TOBACCO	5	149	128
FISHER	6	151	101
YAAK	10	168	121
KOOTENAI in MT	36	152	118
KOOTENAI ab Bonners Ferry	63	152	126

FLATHEAD RIVER BASIN

April mountain precipitation was near 90 percent of average. The cumulative precipitation since October 1 is 123 percent of average. Mountain snowpacks remain above to well above average in the higher elevation basins and near to above average in the lower basins. Streamflows for the remaining spring and summer months are forecast to be above to well above average. The North, Middle and South Forks of the Flathead River are expected to reach peak snowmelt runoff in early June at above average levels. The Swan River should reach peak snowmelt runoff near mid-June at a level of above average.

STREAMFLOW FORECASTS

FORECAST POINT	FCST PERIOD	<---DRIER--- FUTURE --WETTER---> CHANCE OF EXCEEDING * 90% (KAF)	70% (KAF)	50% (KAF)	50% %AVG	30% (KAF)	10% (KAF)	25YR (KAF)
NF FLATHEAD nr Columbia Falls	MAY-JUL	1990	2080	2140	140	2200	2290	1529
	MAY-SEP	2220	2320	2390	140	2460	2560	1708
MF FLATHEAD nr West Glacier	MAY-JUL	1770	1890	1970	130	2050	2170	1514
	MAY-SEP	1950	2080	2170	130	2260	2390	1670
SF FLATHEAD nr Columbia Fls (1,2)	MAY-JUL	2110	2260	2330	125	2400	2550	1861
	MAY-SEP	2230	2420	2500	125	2580	2770	2000
FLATHEAD at Columbia Falls (2)	MAY-JUL	6050	6360	6570	131	6780	7090	5016
	MAY-SEP	6640	7000	7240	131	7480	7840	5508
STILLWATER nr Whitefish	MAY-JUL	176	187	195	131	205	215	149
	MAY-SEP	198	210	220	130	230	240	169
WHITEFISH nr Kalispell	MAY-JUL	102	109	114	128	119	126	89
	MAY-SEP	119	125	130	127	135	141	102
SWAN nr Bigfork	MAY-JUL	530	565	590	116	615	650	510
	MAY-SEP	615	660	690	116	720	765	596
FLATHEAD nr Polson (1,2)	MAY-JUL	6720	7230	7460	128	7690	8200	5835
	MAY-SEP	7260	7900	8190	128	8480	9120	6399

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1985 base period.

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(2) - The value is natural flow - actual flow may be affected by upstream water management.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
CAMAS (4)	45.2	41.0	31.8	28.4
MISSION VALLEY (8)	100.0	28.6	63.7	49.7
HUNGRY HORSE	3451.0	1648.0	2297.0	2040.0
FLATHEAD LAKE	1791.0	1011.0	1206.0	929.0

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
NORTH FORK FLATHEAD	14	153	136
MIDDLE FORK FLATHEAD	11	153	136
SOUTH FORK FLATHEAD	12	149	118
STILLWATER-WHITEFISH	9	176	123
SWAN	13	135	112
MISSION VALLEY	7	127	106
LITTLE BITTERROOT-ASHLEY	9	283	100
JOCKO	7	151	110
FLATHEAD	54	150	123

UPPER CLARK FORK RIVER BASIN

Mountain precipitation for April was slightly above average. The cumulative total since October 1 is now near average. Basin snowpack conditions showed a slight improvement during April and are now near average except in the Flint Creek Mountain Range where below average snowpacks are found. Streamflows for the remaining spring and summer months are expected to be below to well below average on the Clark's Fork River and its tributaries. Most major streams are expected to reach peak snowmelt runoff in mid to late May at below average levels. The Surface Water Supply Index (SWSI) is -1.2 for the Clark Fork River above the Blackfoot River, +0.7 for the Blackfoot River and -0.1 for the Clark Fork at Missoula.

STREAMFLOW FORECASTS

FORECAST POINT	FCST PERIOD	90% (KAF)	70% (KAF)	50% (KAF)	50% %AVG	30% (KAF)	10% (KAF)	25YR (KAF)
		<---DRIER---	FUTURE	--WETTER--->				
		-----	CHANCE OF EXCEEDING *			-----		
MOULTON RES inflow (million gal.)	MAY-JUN	65	98	120	62	142	175	193
	MAY-JUL	74	110	134	61	159	195	218
WARM SPRINGS CK at Anaconda (2)	MAY-JUL	13.0	19.0	23	64	27	33	36
	MAY-SEP	18.0	25	29	64	33	40	45
LITTLE BLACKFOOT nr Garrison	MAY-JUL	16.0	40	56	70	72	96	80
	MAY-SEP	20	45	62	70	79	104	88
FLINT CK nr Southern Cross (2)	MAY-JUL	2.9	5.8	7.7	59	9.6	12.5	13.1
	MAY-SEP	3.3	6.9	9.4	59	11.9	15.5	15.9
FLINT CK bl Boulder Ck	MAY-JUL	15.0	25	32	59	39	49	54
	MAY-SEP	21	34	42	60	50	63	70
LOWER WILLOW CK RES inflow	MAY-JUL	3.2	5.8	7.6	61	9.4	12.0	12.5
	MAY-SEP	3.6	6.3	8.2	61	10.1	12.8	13.4
MF ROCK CK nr Philipsburg	MAY-JUL	34	41	46	71	51	58	65
	MAY-SEP	39	47	52	71	57	65	73
ROCK CK nr Clinton	MAY-JUL	137	167	188	68	210	240	277
	MAY-SEP	160	193	215	68	235	270	316
NEVADA CK nr Finn	MAY-JUL	3.6	7.8	10.6	63	13.4	17.6	16.7
	MAY-SEP	4.3	8.8	11.8	64	14.8	19.3	18.4
CLEARWATER nr Clearwater	MAY-JUL	105	118	127	95	136	149	134
	MAY-SEP	109	126	137	95	149	166	144
BLACKFOOT nr Bonner	MAY-JUL	560	635	685	90	735	810	761
	MAY-SEP	640	720	770	90	820	900	856
CLARK FORK ab Milltown	MAY-JUL	198	310	385	64	460	570	598
	MAY-SEP	250	370	455	64	540	660	707
CLARK FORK ab Missoula	MAY-JUL	790	955	1070	79	1180	1350	1359
	MAY-SEP	935	1110	1230	79	1350	1530	1563

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1985 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
GEORGETOWN LAKE	31.0	29.8	28.4	24.3
LOWER WILLOW CREEK	4.9	3.5	5.0	3.1
NEVADA CREEK	12.6	9.8	12.7	10.2

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
CLARK FORK ab FLINT CREEK	25	161	95
FLINT CREEK	10	136	78
ROCK CREEK	5	139	91
CLARK FORK ab BLACKFOOT	38	166	95
BLACKFOOT	17	159	108
UPPER CLARK FORK	52	162	100

BITTERROOT RIVER BASIN

Mountain April precipitation was much above average. The cumulative total since October 1 is near average. Mountain snowpacks are a little below average for this time of year. Forecasts for the remaining spring and summer months are expected to be a little below average. Peak snowmelt runoff on the Bitterroot River is expected to occur in early June at below average levels. The Surface Water Supply Index (SWSI) for the Bitterroot River is -1.1.

STREAMFLOW FORECASTS

FORECAST POINT	FCST PERIOD	<---DRIER--- FUTURE --WETTER---> CHANCE OF EXCEEDING * 90% (KAF)	70% (KAF)	50% (KAF)	50% %AVG	30% (KAF)	10% (KAF)	25YR (KAF)
WF BITTERROOT nr Conner (2)	MAY-JUL	91	108	120	83	132	149	145
	MAY-SEP	102	120	132	83	144	163	159
BITTERROOT nr Darby	MAY-JUL	295	350	385	82	420	475	469
	MAY-SEP	335	390	425	82	460	515	519
ROCK CK nr Darby (2)	MAY-JUL	50	56	60	85	64	70	71
	MAY-SEP	54	60	64	85	68	75	75
SKALKAHO CK nr Hamilton	MAY-JUL	29	34	37	82	40	45	45
	MAY-SEP	34	39	43	83	47	52	52
BURNT FORK CK nr Stevensville (2)	MAY-JUL	17.0	21	24	86	27	31	28
	MAY-SEP	21	26	29	85	32	37	34
BITTERROOT at Missoula	MAY-JUL	830	945	1020	83	1100	1210	1228
	MAY-SEP	920	1040	1120	83	1200	1320	1352

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

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(2) - The value is natural flow - actual flow may be affected by upstream water management.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
PAINTED ROCKS LAKE	31.7	9.9	18.5	21.0
COMO	34.9	18.4	27.5	19.4

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
WEST FORK BITTERROOT	8	186	89
EAST SIDE BITTERROOT	6	139	89
WEST SIDE BITTERROOT	9	152	87
BITTERROOT	23	157	88

LOWER CLARK FORK RIVER BASIN

Mountain precipitation during April was near average. Since October 1, the cumulative precipitation total is now above average. Mountain snowpacks in the Bitterroot and Upper Clark Fork River Basins are near to a little below average. Snowpacks on the Lower Clark Fork tributaries are near average at the higher elevations and below average at the lower elevations. Streamflows for the remaining spring and summer period are forecast to be below average between Missoula and St. Regis and a little above average in the lower reaches. The smaller tributaries are forecast to be near average. The Clark Fork River below Missoula is expected to reach peak snowmelt runoff in late May or early June at below average levels. The Surface Water Supply Index (SWSI) is -0.1 for the Clark Fork River at Missoula, -1.1 for the Bitteroot River and -0.4 for the Clark Fork River below the Bitterroot River.

STREAMFLOW FORECASTS

FORECAST POINT	FCST PERIOD	<---DRIER--- FUTURE --WETTER---> CHANCE OF EXCEEDING * 90% (KAF)	70% (KAF)	50% (KAF)	50% %AVG	30% (KAF)	10% (KAF)	25YR (KAF)
CLARK FORK ab Missoula	MAY-JUL	790	955	1070	79	1180	1350	1359
	MAY-SEP	935	1110	1230	79	1350	1530	1563
CLARK FORK bl Missoula	MAY-JUL	1650	1910	2090	81	2270	2530	2587
	MAY-SEP	1880	2160	2350	81	2540	2820	2915
CLARK FORK at St. Regis (1)	MAY-JUL	2020	2500	2720	80	2940	3380	3379
	MAY-SEP	2270	2810	3060	80	3310	3810	3809
CLARK FORK nr Plains (1,2)	MAY-JUL	8590	9730	10200	107	10700	11600	9541
	MAY-SEP	9670	10800	11300	106	11800	13000	10621
THOMPSON nr Thompson Falls	MAY-JUL	162	188	205	114	220	250	180
	MAY-SEP	191	215	235	112	255	280	209
PROSPECT CK at Thompson Falls	MAY-JUL	79	90	98	97	106	117	101
	MAY-SEP	87	99	107	97	115	127	110
CLARK FK at Whitehorse Rpds (1,2)	MAY-JUL	9390	10600	11200	106	11800	13000	10538
	MAY-SEP	10500	11900	12500	106	13100	14500	11764

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

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(2) - The value is natural flow - actual flow may be affected by upstream water management.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
NOXON RAPIDS	335.0	308.9	317.0	186.3

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
UPPER CLARK FORK	52	162	100
BITTERROOT	23	157	88
LOWER CLARK FORK	24	139	93
CLARK FORK TOTAL	91	154	95
FLATHEAD	42	147	125
PEND OREILLE	137	152	107

JEFFERSON RIVER BASIN

April mountain precipitation was 157 percent of average. The cumulative precipitation total since October 1 is 92 percent of average. Mountain snowpack conditions improved substantially during April and basin wide snowpacks now range from below to near average. The lowest snowpack conditions are found in the Red Rock River Drainage at 70 to 80 percent of average. Reservoir storage remains well below average in Lima and Clark Canyon Reservoirs and near average in Ruby Reservoir. May through September streamflows are forecast to be below to well below average. Most major streams are expected to reach peak snowmelt runoff in mid to late May except on the Big Hole River which should peak in early June. Peak flows are expected to be below average. The Surface Water Supply Index (SWSI) are: Beaverhead River -2.3; Ruby River -1.8; Big Hole River -1.3; Boulder River -0.8; Jefferson River -1.5.

STREAMFLOW FORECASTS

FORECAST POINT	FCST PERIOD	90% (KAF)	70% (KAF)	50% (KAF)	50% %AVG	30% (KAF)	10% (KAF)	25YR (KAF)
		<---DRIER---		FUTURE		--WETTER--->		
		-----		CHANCE OF EXCEEDING *		-----		
RED ROCK RIVER near Monida (2)	MAY-JUL	24	44	58	73	72	93	80
	MAY-SEP	23	46	62	70	78	101	89
BEAVERHEAD RIVER near Grant (2)	MAY-JUL	16.0	55	82	75	109	148	109
	MAY-SEP	12.0	62	96	72	130	180	133
BEAVERHEAD RIVER at Barratts (2)	MAY-JUL	39	81	110	77	139	181	143
	MAY-SEP	53	102	135	77	168	215	175
RUBY RIVER near Alder	MAY-JUL	50	62	70	93	78	91	75
	MAY-SEP	60	75	85	92	95	110	92
BIG HOLE RIVER near Melrose	MAY-JUL	290	380	440	72	500	590	612
	MAY-SEP	310	410	480	71	550	650	673
BOULDER RIVER near Boulder	MAY-JUL	22	39	50	63	62	78	80
	MAY-SEP	24	42	55	63	68	87	87
WILLOW CREEK near Harrison	MAY-JUL	3.0	6.2	10.0	61	13.8	19.4	16.4
	MAY-SEP	3.4	7.3	11.5	61	15.7	22	18.8
JEFFERSON near Three Forks (2)	MAY-JUL	174	405	565	67	725	955	839
	MAY-SEP	188	455	635	67	815	1080	954

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1985 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
LIMA	84.0	28.4	46.0	56.5
CLARK CANYON	255.6	108.5	108.3	163.2
RUBY RIVER	38.8	34.2	39.8	35.6

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
BEAVERHEAD	31	223	88
RUBY	14	182	97
BIGHOLE	27	175	95
BOULDER	14	191	97
JEFFERSON	70	194	93

MADISON RIVER BASIN

April precipitation in the mountainous areas was near 150 percent of average. The cumulative precipitation total since October 1 is 89 percent of average. Basin snowpacks showed significant improvement during April and are now near average. Streamflows for the May through September period are expected to be below average. The peak snowmelt runoff is expected to occur in late May at below average levels. High elevation streams flowing into the Madison River below Hebgen Lake should reach peak snowmelt runoff in early to mid-June. The Surface Water Supply Index (SWSI) is -1.0 for the Madison River.

STREAMFLOW FORECASTS

FORECAST POINT	FCST PERIOD	<---DRIER--- FUTURE --WETTER---> CHANCE OF EXCEEDING * 90% (KAF)	70% (KAF)	50% (KAF)	50% %AVG	30% (KAF)	10% (KAF)	25YR (KAF)
MADISON RIVER near Grayling (2)	MAY-JUL	230	260	280	84	300	330	333
	MAY-SEP	310	345	370	84	395	430	443
MADISON RIVER near McAllister (2)	MAY-JUL	410	455	485	84	515	560	577
	MAY-SEP	545	595	630	84	665	715	753

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1985 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
ENNIS LAKE	41.0	32.5	35.1	35.7
HEBGEN LAKE	377.5	291.0	312.0	236.2

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
MADISON above HEBGEN	11	194	93
LOWER MADISON	19	167	98
MADISON	30	176	96

GALLATIN RIVER BASIN

April mountain precipitation was 156 percent of average. Since October 1, the cumulative precipitation total is now near 95 percent of average. Snowpacks showed good improvement over the month and are now near average. Streamflows for the remaining spring and summer months are forecast to be near average. The Gallatin River is expected to reach peak snowmelt runoff in mid to late June at a near average level. The Surface Water Supply Index (SWSI) for the Gallatin River is +0.6.

STREAMFLOW FORECASTS

FORECAST POINT	FCST PERIOD	<---DRIER--- FUTURE --WETTER---> CHANCE OF EXCEEDING * 90% (KAF)	70% (KAF)	50% (KAF)	50% %AVG	30% (KAF)	10% (KAF)	25YR (KAF)
GALLATIN RIVER near Gateway	MAY-JUL	410	435	455	106	475	500	430
	MAY-SEP	490	520	540	106	560	590	510
HYALITE CREEK near Bozeman (2)	MAY-JUL	30	34	37	106	40	44	35
	MAY-SEP	36	40	43	105	46	50	41
GALLATIN RIVER at Logan	MAY-JUL	405	475	520	114	565	635	458
	MAY-SEP	495	570	620	114	670	745	546

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1985 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
MIDDLE CREEK	8.0	5.4	6.1	4.4

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
UPPER GALLATIN	12	141	101
EAST GALLATIN	12	160	102
GALLATIN	21	153	100

MAINSTEM MISSOURI RIVER BASIN

April mountain precipitation was near 155 percent of average. The cumulative total since October 1 is now near average. Mountain snowpack conditions range from below average on the Jefferson Drainage to well above average on the major tributaries to the north. May through September streamflows are forecast to be below to near average on the Missouri headwaters, near to a little above average on the Smith and smaller tributaries in the central part of the basin and above to well above average on the major tributaries to the north. The Missouri River at Toston is expected to reach peak snowmelt runoff in early to mid-June at near or a little below average levels. The Surface Water Supply Index (SWSI) for the Missouri River above Canyon Ferry is -0.8.

STREAMFLOW FORECASTS

FORECAST POINT	FCST PERIOD	<---DRIER--- FUTURE --WETTER---> CHANCE OF EXCEEDING * 90% (KAF)	70% (KAF)	50% (KAF)	50% %AVG	30% (KAF)	10% (KAF)	25YR (KAF)
MISSOURI RIVER at Toston (2)	MAY-JUL	1170	1460	1630	86	1800	2080	1890
	MAY-SEP	1380	1730	1920	86	2110	2450	2230
PRICKLY PEAR CREEK nr Clancy	MAY-JUL	5.5	9.4	15.0	65	21	29	23
	MAY-SEP	8.1	11.8	18.0	64	24	33	28
SUN RIVER at Gibson Dam (2)	MAY-JUL	490	555	600	130	645	710	462
	MAY-SEP	550	620	665	130	710	780	511
MISSOURI RIVER at Fort Benton (2)	MAY-JUL	1880	2300	2700	92	3110	3550	2930
	MAY-SEP	2210	2750	3180	92	3610	4170	3450
MARIAS RIVER near Shelby (2)	MAY-JUL	450	500	580	141	660	760	412
	MAY-SEP	475	530	615	141	700	805	436
MISSOURI RIVER at Virgelle (2)	MAY-JUL	2380	2950	3420	102	3890	4560	3350
	MAY-SEP	2770	3490	3990	102	4490	5300	3900
MISSOURI RIVER near Landusky (2)	MAY-JUL	2630	3250	3800	104	4350	5070	3650
	MAY-SEP	3050	3850	4430	104	5010	5890	4240
MISSOURI RIVER blw Fort Peck (2)	MAY-JUL	2490	3110	3770	106	4430	5090	3560
	MAY-SEP	2870	3620	4330	106	5040	5860	4100
LAKE SAKAKAWEA Inflow (2)	MAY-JUL	7460	8900	10200	111	11500	13100	9210
	MAY-SEP	8410	10100	11500	111	12900	14700	10380

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1985 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
CANYON FERRY LAKE	2043.0	1439.0	1440.0	1505.0
HELENA VALLEY	9.2	7.6	7.0	7.5
LAKE HELENA	10.4	11.1	10.7	10.0
HAUSER & HELENA	61.9	63.6	62.5	60.0
HOLTER LAKE	81.9	81.0	79.8	72.6
FORT PECK LAKE (MAF)	18.9	10.6	11.4	15.3

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
MISSOURI HEADWATERS	106	184	95
WEST SIDE MISSOURI	11	171	103
SMITH-BELT	11	172	121
MAINSTEM MISSOURI	22	172	113
SUN-TETON-MARIAS	18	184	154
JUDITH-MUSSELSHELL	16	175	136
MISSOURI above FORT PECK	147	182	106
MILK RIVER	11	197	133
MISSOURI in MONTANA	156	183	106
MISSOURI blw YELLOWSTONE	259	166	110

SMITH-JUDITH-MUSSELSHELL RIVER BASINS

April mountain precipitation was 241 percent of average. This brings the cumulative total since October 1 to 117 percent of average. Mountain snowpacks improved significantly during the month and are now above to well above average. Reservoir storage levels are near average in Newlan Creek Reservoir and below to well below average in Bair, Martinsdale, Deadman's Basin and Smith Reservoirs. Streamflows for the remaining spring and summer months are forecast to be near to a little above average. Peak snowmelt runoff is expected to occur in early June at near average levels. The Surface Water Supply Index (SWSI) is +1.5 for the Smith River and +0.5 for the Musselshell River.

STREAMFLOW FORECASTS

FORECAST POINT	FCST PERIOD	90% (KAF)	70% (KAF)	50% (KAF)	50% %AVG	30% (KAF)	10% (KAF)	25YR (KAF)
		<---DRIER---		FUTURE			---WETTER--->	
		-----		CHANCE OF EXCEEDING *			-----	
SMITH RIVER nr Ft. Logan	MAY-JUL	16.0	35	48	86	61	80	56
	MAY-SEP	23	44	58	85	72	93	68
SHEEP CK nr White Sulphur Springs	MAY-JUL	16.1	18.4	20	117	22	24	17.1
	MAY-SEP	19.0	21	23	115	25	27	20
NF MUSSELSHELL near Delpine	MAY-JUL	3.2	4.1	4.7	115	5.3	6.2	4.1
	MAY-SEP	3.7	4.8	5.5	112	6.2	7.3	4.9
SF MUSSELSHELL abv Martinsdale	MAY-JUL	28	46	58	114	70	89	51
	MAY-SEP	31	50	63	115	76	95	55

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1985 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
SMITH RIVER	10.6	6.7	8.5	9.4
NEWLAN CREEK	12.4	9.7	9.8	9.7
BAIR	7.0	4.1	6.0	6.0
MARTINSDALE	23.1	9.4	20.5	12.3
DEADMAN'S BASIN	72.2	48.4	38.6	56.6

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
SMITH-BELT	11	172	121
JUDITH-MUSSELSHELL	16	175	136

SUN-TETON-MARIAS RIVER BASINS

April mountain precipitation was near 160 percent of average. Cumulative precipitation since October 1 is 145 percent of average. Mountain snowpacks remain well above average in the headwater areas along the Continental Divide. Reservoir storages vary from well below average in Four Horns, Swift and Pishkun Reservoirs to above average in most other reservoirs. Streamflows are expected to be above to well above average for the remaining spring and summer months. Peak snowmelt runoff is expected to occur in early June at above average flows. The Surface Water Supply Index (SWSI) is +3.4 on the Marias River and +3.3 on the Sun River.

STREAMFLOW FORECASTS

FORECAST POINT	FCST PERIOD	<---DRIER--- FUTURE --WETTER---> CHANCE OF EXCEEDING * 90% (KAF)	70% (KAF)	50% (KAF)	50% %AVG	30% (KAF)	10% (KAF)	25YR (KAF)
SUN RIVER at Gibson Dam (2)	MAY-JUL	490	555	600	130	645	710	462
	MAY-SEP	550	620	665	130	710	780	511
TWO MEDICINE CREEK nr Browning (2)	MAY-JUL	230	270	295	150	320	360	197
	MAY-SEP	250	290	315	150	340	380	210
BADGER CREEK near Browning (2)	MAY-JUL	106	123	135	139	147	164	97
	MAY-SEP	130	148	160	140	172	190	114
SWIFT RESERVOIR Inflow nr Dupuyer	MAY-JUL	70	82	90	141	98	111	64
	MAY-SEP	84	96	105	138	114	127	76
DUPUYER CREEK near Valier	MAY-JUL	6.0	15.0	21	145	27	36	15.0
	MAY-SEP	9.0	18.0	24	147	30	39	16.0
CUT BANK CREEK at Cut Bank	MAY-JUL	81	93	102	129	111	123	79
	MAY-SEP	92	106	115	131	124	138	88
MARIAS RIVER near Shelby (2)	MAY-JUL	450	500	580	141	660	760	412
	MAY-SEP	475	530	615	141	700	805	436

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1985 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
GIBSON	99.1	62.2	64.5	53.9
PISHKUN	32.0	17.9	22.8	26.6
WILLOW CREEK	32.2	28.6	31.6	23.7
LOWER TWO MEDICINE LAKE	11.9	12.2	12.1	10.6
FOUR HORNS LAKE	19.2	9.2	13.2	12.8
SWIFT	30.0	8.1	20.5	16.1
LAKE FRANCES	112.0	94.6	102.3	74.6
LAKE ELWELL (TIBER)	1347.0	672.3	794.9	582.5

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
SUN-TETON	12	233	162
MARIAS	7	163	151
SUN-TETON-MARIAS	18	184	154

ST. MARY and MILK RIVER BASINS

Mountain precipitation during April was near 170 percent of average. Cumulative precipitation since October 1 is 140 percent of average. Mountain snowpacks remain well above average in the St. Mary and Milk headwater areas while below average snowpacks continue in the Bear Paw Mountains south of Havre. Most reservoirs report below average storage levels except Beaver Creek Reservoir which has above average storage. Streamflows for the remaining spring and summer period are expected to be above average. The Surface Water Supply Index (SWSI) is +1.8 for the Milk River (USBR Project Water Users).

STREAMFLOW FORECASTS

FORECAST POINT	FCST PERIOD	<---DRIER--- FUTURE --WETTER---> CHANCE OF EXCEEDING * 90% (KAF)	70% (KAF)	50% (KAF)	50% %AVG	30% (KAF)	10% (KAF)	25YR (KAF)
SWIFTCURRENT CK at Sherburne (2)	MAY-JUL	96	103	108	107	113	120	101
	MAY-SEP	113	121	127	107	133	141	119
ST. MARY RIVER near Babb (2)	MAY-JUL	365	400	425	111	450	485	383
	MAY-SEP	425	465	500	110	530	570	453
MILK RIVER at Eastern Crossing	MAY-SEP	58	65	68	133	87	103	51
MILK RIVER at Eastern Crossing (2)	MAY-SEP			245	120			204

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1985 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
LAKE SHERBURNE	64.3	14.8	42.8	19.6
FRESNO	127.0	80.0	95.6	96.5
BEAVER CREEK	3.5	3.2	3.3	2.6
NELSON	66.8	37.0	54.7	42.0

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
MILK HEADWATERS	4	192	146
BEAR PAW	7	279	65
MILK RIVER	11	197	133
ST. MARY	11	156	131
ST. MARY and MILK	17	161	128
BOW RIVER in ALBERTA	9	142	163
OLDMAN RIVER in ALBERTA	7	172	189

UPPER YELLOWSTONE RIVER BASIN

April mountain precipitation was 182 percent of average. This raised the cumulative precipitation total since October 1 to 106 percent of average. Mountain snowpacks showed good improvement during the month and are now near to a little above average. Streamflows for the remaining spring and summer months are forecast to be near average except on Red Lodge Creek below Cooney Reservoir which is forecast to be well above average. Peak snowmelt runoff is expected to occur in mid to late June on most streams at near average levels. The Surface Water Supply Index (SWSI) are: Yellowstone River above Livingston -0.4; Shields River +1.0; Boulder River +0.8; Stillwater River +1.1; Clarks Fork River -0.5; Rock-Red Lodge Creek +0.8; Yellowstone above Bighorn River 0.0.

STREAMFLOW FORECASTS

FORECAST POINT	FCST PERIOD	90% (KAF)	70% (KAF)	50% (KAF)	50% %AVG	30% (KAF)	10% (KAF)	25YR (KAF)
		<---DRIER---	FUTURE	--WETTER--->				
		-----	CHANCE OF EXCEEDING	*	-----			
YELLOWSTONE at Lake Outlet	MAY-JUL	390	440	475	86	510	560	555
	MAY-SEP	585	645	685	87	725	785	784
YELLOWSTONE at Corwin Springs	MAY-JUL	1280	1400	1470	94	1550	1660	1570
	MAY-SEP	1580	1710	1790	94	1870	2000	1910
YELLOWSTONE RIVER near Livingston	MAY-JUL	1480	1610	1700	94	1790	1920	1810
	MAY-SEP	1840	1980	2080	94	2180	2320	2220
SHIELDS RIVER near Livingston	MAY-JUL	68	108	135	96	162	200	140
	MAY-SEP	80	122	150	94	178	220	159
BOULDER RIVER at Big Timber	MAY-JUL	265	305	330	97	355	395	340
	MAY-SEP	290	330	360	97	390	430	372
W. ROSEBUD CREEK near Roscoe (2)	MAY-JUL	49	55	60	95	65	71	63
	MAY-SEP	66	72	77	95	82	89	81
STILLWATER RIVER nr Absarokee (2)	MAY-JUL	375	440	485	97	530	595	501
	MAY-SEP	475	535	580	96	625	685	602
CLARKS FORK RIVER near Belfry	MAY-JUL	405	455	490	94	525	575	519
	MAY-SEP	460	510	545	94	580	630	582
RED LODGE CK blw Cooney Res (2)	MAY-JUL	39	52	61	149	70	83	41
	MAY-SEP	53	66	75	147	84	97	51
YELLOWSTONE RIVER at Billings	MAY-JUL	2960	3120	3400	98	3680	3900	3480
	MAY-SEP	3540	3810	4090	98	4370	4660	4160

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1985 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
MYSTIC LAKE	21.0	0.6	0.8	2.0
COONEY	27.4	16.7	21.6	18.6

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
YELLOWSTONE ab LIVINGSTON	22	140	102
SHIELDS	9	173	100
BOULDER-STILLWATER	6	167	120
CLARK'S FORK-ROCK CREEK	19	154	112
YELLOWSTONE above BIGHORN	49	161	110

LOWER YELLOWSTONE RIVER BASIN

Mountain precipitation during April was 184 percent of average. Since October 1, the cumulative precipitation total is now 125 percent of average. Mountain snowpacks showed good improvement over the month and are now above average. Streamflows for the remaining spring and summer period are expected to range from near to above average. The Surface Water Supply Index (SWSI) is 0.0 for the Yellowstone River above the Bighorn River, +1.2 for the Little Bighorn River and +2.1 for the Tongue River.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
BIGHORN LAKE	1356.0	722.4	707.7	681.2
TONGUE RIVER	68.0	13.3	33.6	36.7

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
BIG HORN (Wyoming)	57	145	117
LITTLE BIGHORN	5	114	121
TONGUE RIVER (Wyoming)	15	121	126
POWDER RIVER (Wyoming)	13	118	123
YELLOWSTONE RIVER	117	148	115